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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,235	04/20/2004	Jun Ogasawara	OGAS3003D/REF	2527
23364	7590	11/09/2004	EXAMINER	
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314			MAYES, MELVIN C	
			ART UNIT	PAPER NUMBER
			1734	

DATE MAILED: 11/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

ML2

Office Action Summary	Application No.		Applicant(s)	
	10/827,235		OGASAWARA ET AL.	
	Examiner		Art Unit	
	Melvin Curtis Mayes		1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 7-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 10/292,595.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>4/20/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

(1)

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(2)

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

Art Unit: 1734

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

(3)

Claim 7 is rejected under 35 U.S.C. 102(b) as being anticipated by Nishiyama et al. 5,397,753.

Nishiyama et al. disclose a method of making a capacitor comprising: providing a mixture of raw ceramic material; forming ceramic green sheets from a slurry of the raw material and binder; printing each green sheet with conductive paste to form internal electrodes; stacking green sheets; cutting the stack into pieces to form green units; and firing the green units to produce capacitor units. The ceramic material includes barium titanate (BaTiO_3) primary component and secondary components of BaO , MnO , MgO and BaZrO_3 and a glass of $\text{BaO-SrO-Li}_2\text{O-SiO}_2$ (col. 3, line 20 – col. 4, line 25).

A ceramic material that includes barium titanate (BaTiO_3) primary component and secondary component BaO includes a primary component of perovskite structure of ABO_3 (BaTiO_3) and an additive (BaO) containing the A-site (Ba) component of the perovskite.

(4)

Claims 7-10 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Masumiya et al. 6,628,502.

Masumiya et al. disclose a method of making a ceramic capacitor comprising: providing a ceramic powder; forming ceramic green sheets from a paste of the ceramic powder and binder; printing each green sheet with internal electrode paste; stacking green sheets; cutting the stack to form a chip and firing the chip. The ceramic powder includes barium titanate as a main component and at least one of barium oxide, calcium oxide or strontium oxide as a subcomponent present as not less than 0 mole to not more than 12 moles with respect to 100 moles of barium titanate main component (col. 4, line 50 – col. 7, line 15).

Further, by providing a ceramic powder which includes barium titanate as a main component and barium oxide as a subcomponent, a ceramic powder that includes a primary component of perovskite structure of ABO_3 ($BaTiO_3$) and an additive (barium oxide) containing the A-site (barium) component of the perovskite is obviously provided.

Further, by providing the barium oxide in an amount not less than 0 mole to not more than 12 moles with respect to 100 moles of barium titanate main component, amounts encompassing the ranges of amount of A-site component and the additive as claimed in Claims 8-10 are obviously provided.

(5)

Claims 7 and 9 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Satoh et al. 5,990,029.

Satoh et al. disclose a method of making ceramic capacitor comprising: providing a ceramic powder starting material; forming ceramic composition sheets from a mixture of the starting material and organic binder; printing internal electrode son the sheets; stacking sheets; and firing. The ceramic starting material includes barium titanate as part of the major component and a subordinate additive of at least one of calcium zirconate, strontium zirconate and barium zirconate in a amount of 0.2 to 5% by weight per 100 moles of the major component (col. 2, line 60 – col. 6, line 65).

Further, by providing a ceramic powder which includes barium titanate as part of the major component and barium zirconate as an additive, a ceramic powder that includes a primary component of perovskite structure of ABO_3 ($BaTiO_3$) and an additive (barium zirconate) containing the A-site (barium) component of the perovskite is obviously provided.

Further, by providing the barium zirconate in an amount 0.2 to 5% by weight per 100 moles of the major component, an amount encompassed by the range of amount of additive as claimed in Claim 9 is obviously provided.

(6)

Claims 7-10 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 2002-255639 Abstract.

JP 2002-255639 Abstract discloses a method of making a ceramic capacitor comprising: providing a dielectric ceramic composition powder; forming green sheets from paste of the powder and organic binder; printing internal electrodes on the green sheets; layering green sheets; cutting the stack into a green chip and firing. The ceramic powder includes barium titanate as a main component and an oxide of at least one of Mg, Ca, Ba and Sr as a first subcomponent present at greater than 0 mol to less than 0.1 mole per 100 moles of the main component. Kobayashi et al. disclose using BaO as the subcomponent at 0.08 mole per 100 moles of barium titanate (Abstract and as described in Kobayashi et al. 6,764,976 ([0022]-[0164])).

Further, by providing a ceramic powder which includes barium titanate as a main component and an oxide of barium as a subcomponent, a ceramic powder that includes a primary component of perovskite structure of ABO_3 ($BaTiO_3$) and an additive (barium oxide) containing the A-site (barium) component of the perovskite is obviously provided.

Further, by providing the barium oxide in an amount not less than 0 mole to not more than 0.1 mole per 100 moles of barium titanate main component, amounts encompassing the ranges of amount of A-site component and the additive as claimed in Claims 8-10 are obviously provided.

Art Unit: 1734

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Conclusion

(7)

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The references disclose making capacitors of ceramic including a perovskite titanate and additive containing an A-site component of the perovskite titanate.


(8)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin Curtis Mayes whose telephone number is 571-272-1234. The examiner can normally be reached on Mon-Fri 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached on 571-272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1734

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Melvin Curtis Mayes
Primary Examiner
Art Unit 1734

MCM
November 4, 2004